

AMENDMENTS**In the claims:**

Please cancel claims 75 and 118, without prejudice.

Please add new claims 162-189 as follows:

162. (New) A kit for the positive identification of cells that secrete a product, comprising:

- J 1
- a) a product capture system comprising an anchoring moiety and a capture moiety;
 - b) a label moiety for detecting captured product; and
 - c) instructions for use of the reagents, all packaged in appropriate containers.

163. (New) The kit of claim 162 wherein said anchor moiety is prepared for coupling to the capture moiety.

164. (New) The kit of claim 162 wherein said capture moiety is prepared for coupling to the anchoring moiety.

165. (New) The kit of claim 162 wherein said anchoring moiety is coupled to said capture moiety.

166. (New) The kit of claim 163, 164 or 165 wherein said coupling is via the biotin/avidin system.

167. (New) A method to determine the proportion of cells labeled with a product in a cell population, wherein the cells labeled with the product secrete said product, comprising the steps of:

- Sum 14
- a) culturing a cell population, wherein said cells of said population are coupled to a capture moiety which specifically binds a product secreted by said cells, under conditions wherein the product is secreted and bound to said capture moiety;
 - b) labeling the cells of step a) with at least one additional label moiety that does not label the product bound to said capture moiety; and

c) comparing the proportion of cells comprising secreted product bound to said capture moiety to the proportion of cells labeled with said label moiety, thereby determining the proportion of cells in the population that secretes the product.

168. (New) A method to determine the amount of cells labeled with a product in a population of cells, wherein the cells are labeled with the product secrete said product, comprising the steps of:

5 JB
161 a) culturing a cell population, wherein said cells of said population are coupled to a capture moiety which specifically binds a product secreted by said cells, under conditions wherein the product is secreted and bound to said capture moiety thereby producing cells labeled with said product; and

b) determining the amount of cells labeled with said product.

169. (New) The method of claim 168 further comprising the step of determining the amount and type of product produced per cell labeled with said product.

170. (New) The method of claim 168 further comprising the steps of:

c) labeling the cells of claim 168 with a second capture moiety which specifically binds a second protein;

d) culturing said cells under conditions wherein a second product is secreted and bound to said second capture moiety thereby producing cells labeled with said second product; and

e) determining the amount of cells labeled with each product.

171. (New) The method of claim 170 further comprising the step of determining the amount and type of each product produced per cell labeled with product.

172. (New) A method to positively separate cells based on a product secreted by the cells comprising separating cells labeled with the product, wherein said cells have been coupled to a capture moiety that specifically binds a product secreted by said cells and wherein said cells have been cultured under conditions wherein the product is secreted and bound to said capture moiety, thereby producing cells labeled with said product, wherein said cells are not lysed by said method and wherein said product is labeled with a label moiety.

173. (New) The method of claim 172 wherein said capture moiety is coupled to said cells through an anchoring moiety.

174. (New) The method of claim 172 wherein the label moiety is an antibody specific for the product.

175. (New) The method of claim 172 wherein the label moiety is fluorochromated.

176. (New) The method of claim 172 wherein the label moiety is magnetizable.

177. (New) The method of claim 176 wherein the label moiety comprises colloidal magnetic particles with a typical diameter of about 5 to 200 nm.

178. (New) The method of claim 172 wherein the capture moiety is an antibody or an antigen-binding fragment thereof.

179. (New) The method of claim 178 wherein said antibody is against a cell surface antigen.

180. (New) The method of claim 173 wherein the anchoring moiety is a lipid anchor.

181. (New) The method of claim 173 wherein the anchoring moiety is an antibody, or an antigen-binding fragment thereof.

182. (New) The method of claim 172 wherein said capture moiety is coupled to said cells through direct chemical coupling of the capture moiety to components on the cell surface, optionally through a linking moiety.

183. (New) The method of claim 172 wherein the product includes cytokines, antibodies, hormones or proteins.

184. (New) The method of claim 172 wherein said product is an antibody.

185. (New) The method of claim 172 wherein said product is a cytokine.

186. (New) The method of claim 185 wherein said cytokine is interleukin.

187. (New) The method of claim 185 wherein said cytokine is IFN γ .

188. (New) The method of claim 183 wherein said product is a growth hormone.

189. (New) A method to determine the amount of product produced per cell in a population of cells, comprising the steps of:

Concl
J1 a) culturing a cell population, wherein said cells of said population are coupled to a capture moiety which specifically binds a product secreted by said cells, under conditions wherein the product is secreted and bound to said capture moiety thereby producing cells labeled with said product; and

b) determining the amount of product produced per cell labeled with said product.

Please amend claims 71, 72, 95, 114, 115, 149 and 150 as follows:

J2 71. (Once amended) A method to positively identify cells based on a product secreted by the cells, comprising culturing said cells under conditions wherein the product is secreted and bound to a capture moiety coupled to said cells wherein said capture moiety specifically binds the product, thereby labeling cells with said product, and wherein said product is labeled with a label moiety, and wherein said cells are not lysed during said method.

72. (Once amended) A method to positively identify cells based on a product secreted by the cells, comprising the steps of:

- a) coupling said cells to a capture moiety;
- b) culturing said cells under conditions wherein the product is secreted and bound to said capture moiety, thereby labeling cells with a product secreted by said cells; and
- c) labeling said product with a label moiety, and wherein said cells are not lysed during said method

J3 95. (Once amended) A composition comprising cells positively identified based on a product secreted by said cells, wherein said cells are coupled to a capture moiety, wherein said product secreted by said cells is bound to said capture moiety, and wherein said product is labeled with a label moiety.

J4 114. (Once amended) The method of claim 71 further comprising the step of positively separating said cells labeled with said product secreted by said cells, wherein said product is labeled with a label moiety.

115. (Once amended) A method to positively separate cells based on a product secreted by the cells, comprising the steps of:

14
Concl
a) culturing cells coupled to a capture moiety under conditions wherein a product is secreted, wherein said product secreted by said cells specifically binds to said capture moiety, thereby producing cells labeled with said product wherein said cells are not lysed by said method, and wherein said product is labeled with a label moiety; and

b) positively separating said cells labeled with said product.

149
149
149. (Once amended) A composition comprising cells positively separated based on a product secreted by the cells, wherein said cells are coupled to a capture moiety and said product secreted by said cells is specifically bound to said capture moiety and wherein said product is labeled with a label moiety.

150. (Once amended) A kit for the positive identification of cells that secrete a product, comprising:

a) at least one of an anchoring moiety and a capture moiety;

b) a label moiety for detecting captured product; and

c) instructions for use of the reagents, all packaged in appropriate containers.